

REMARKS

The present application was filed on August 7, 2001 with claims 1-49. Claims 1, 7, 12, 25, and 49 have been amended. Claims 1, 25 and 49 are the pending independent claims.

In the outstanding Office Action, dated January 3, 2007, Examiner: (i) objected to claims 7 and 12; (ii) rejected claim 49 under 35 U.S.C. §101; (iii) rejected claims 1, 3-25 and 27-49 under 35 U.S.C. §112, second paragraph; and (iv) rejected claims 1, 3-25 and 27-49 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,681,060 to Acharya et al. (hereinafter "Acharya") in view of U.S. Patent No. 6,834,288 to Chen et al. (hereinafter "Chen").

With regard to the objection to claims 7 and 12, Applicants have amended claims 7 and 12 in compliance with proper antecedent basis. Accordingly, withdrawal of the objection to claims 7 and 12 is respectfully requested.

With regard to the rejection of claim 49 under 35 U.S.C. §101, Applicants have amended claim 49 to more clearly recite statutory subject matter. More specifically, independent claim 49 recites a method for making a computer implemented process to enable retrieval of one or more items from at least one database in response to a query specified by a user via a plurality of positive and negative example sets through instantiating a series of computer instructions onto a computer readable medium. Accordingly, withdrawal of the §101 rejection of claim 49 is respectfully requested.

With regard to the rejection of claims 1, 3-25 and 27-49 under 35 U.S.C. §112, second paragraph, Applicants have amended the independent claims to recite a querying step. More specifically, independent claims 1, 25 and 49 recite the querying of the at least one database in accordance with the scoring function, wherein higher scores are associated with database items more closely related to the query. Support for the amendment can be found on page 6 of the Specification. Accordingly, withdrawal of the §112, second paragraph, rejection of claims 1, 3-25 and 27-49 is respectfully requested.

With regard to the rejection of claims 1, 3-25 and 27-49 under 35 U.S.C. §103(a) as being unpatentable over Acharya in view of Chen, Applicants respectfully assert that the cited combination

fails to establish a prima facie case of obviousness under 35 U.S.C. §103(a), as specified in M.P.E.P. §2143.

As set forth therein, M.P.E.P. §2143 states that three requirements must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited combination must teach or suggest all the claim limitations. While it is sufficient to show that a prima facie case of obviousness has not been established by showing that one of the requirements has not been met, Applicants respectfully believe that none of the requirements have been met.

First, Applicants assert that no motivation or suggestion exists to combine Archarya and Chen in a manner proposed by the Examiner, or to modify their teachings to meet the claim limitations. For at least this reason, a prima facie case of obviousness has not been established.

The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination “must be based on objective evidence of record” and that “this precedent has been reinforced in myriad decisions, and cannot be dispensed with.” *In re Lee*, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that “conclusory statements” by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved “on subjective belief and unknown authority.” *Id.* at 1343-1344. The Examiner fails to provide any statement to prove motivation to combine Acharya and Chen. Further, the Examiner fails to identify any objective evidence of record which supports the proposed combination.

It is well-settled law that “teachings of references can be combined *only* if there is some suggestion or incentive to do so.” *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) (emphasis in original). Moreover, in order to avoid the improper use of a hindsight-based obviousness analysis, particular findings must be made as to why one skilled in the relevant art, having no knowledge of the claimed invention, would have selected the components disclosed by Acharya and Chen in the manner claimed (*See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000)). “It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to ‘[use] that

which the inventor taught against its teacher.”” *In re Sang-Su Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002) (quoting *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)).

Secondly, Applicants assert that there is no reasonable expectation of success in achieving the present invention through a combination of Acharya and Chen. For at least this reason, a prima facie case of obviousness has not been established. Applicants do not believe that Acharya and Chen are combinable since it is not clear how one would combine them. No guidance was provided in the Office Action as to how the references can be combined to achieve the present invention. However, even if combined, for the sake of argument, they would not achieve the techniques of the claimed invention.

Lastly, the collective teaching of Acharya and Chen fails to suggest or render obvious at least the elements of claims 1, 3-25 and 27-49 of the present invention. For at least this reason, a prima facie case of obviousness has not been established.

Independent claim 1 recites a computer-based method of retrieving one or more items from at least one database in response to a query specified by a user via a plurality of positive and negative example sets. The method comprises the steps of constructing a scoring function from the plurality of positive and negative example sets, wherein the scoring function is operable for use with a multidimensional indexing structure capable of supporting similarity queries and associated with the at least one database; querying the at least one database in accordance with the scoring function, wherein higher scores are associated with database items more closely related to the query; and retrieving, via the multidimensional indexing structure, the one or more database items that have the highest score as computed using the scoring function. Independent claims 25 and 49 recite additional aspects of the invention having similar limitations.

Acharya teaches a method of image comparison and retrieval using distance measurements obtained from the Mahalanobis distance equation. Acharya’s applicability is specific to images, while the independent claims of the present invention relate directly to user specified database queries. The Examiner concedes that Acharya fails to disclose a scoring function from the plurality of positive and negative example sets, that is operable for use with a multidimensional indexing

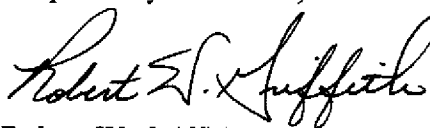
structure capable of supporting similarity queries and associated with at least one database. The Examiner cites Chen for combination with Acharya in order to remedy the deficiencies of Acharya alone.

Chen discloses a content-based retrieval method and apparatus which retrieves statistically salient common features among sample query images having different feature sets. While Chen makes mention of applications that provide positive and negative samples, the reference continues to say that the query unit enhances a positive feature while excluding the negative ones. Thus, a scoring function of the query is not constructed from a plurality of positive and negative example sets as recited in the independent claims of the present invention. Further, Chen fails to disclose a multidimensional indexing structure capable of supporting similarity queries. Thus, Chen fails to remedy the deficiencies of Acharya discussed above, and the combined teaching of Acharya and Chen fails to disclose a scoring function from the plurality of positive and negative example sets, that is operable for use with a multidimensional indexing structure capable of supporting similarity queries and associated with at least one database.

Dependent claims 3-24 and 27-48 are patentable at least by virtue of their dependency from independent claims 1 and 25, and also recite patentable subject matter in their own right. Accordingly, withdrawal of the §103(a) rejection of claims 1, 3-25 and 27-49 is respectfully requested.

In view of the above, Applicants believe that claims 1, 3-25 and 27-49 are in condition for allowance, and respectfully request withdrawal of the §101, §112 and §103(a) rejections.

Respectfully submitted,



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Date: March 29, 2007